

Attachment C



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October 21, 2022

Derrick Boyd
Boyd Powers Williamson
105 North State St., Suite B
Decatur, TX 76234

RE: Robert Harris, et. al. v PropX, et. al.

Dear Mr. Boyd,

Thank you for the opportunity of working with you in the matter relating to Robert Harris, Ron Cope, and Bulk Trans-Load Authority, LLC. As agreed, I have reviewed documents related to this matter, researched data relative to this case, and estimated the lost royalties and lost ownership payout relative the operation of PropX prior to its sale in 2021. My opinions and conclusions are contained in the text of this report.

This report was prepared solely by me. I have no current or anticipated future interests with any of the involved parties that would prevent me from providing an unbiased opinion. My compensation is not contingent on the opinions, analyses or conclusions in this report. This is a preliminary report and subject to change with new data or information.

A list of documents reviewed has been attached at the end of this report. I have also included my current curriculum vitae, prior testimonies, and fee schedule. If you have any questions concerning this report, please call me at 817.348.0213.

Sincerely,

A handwritten signature in black ink, appearing to read "Allyn Needham". The signature is fluid and stylized, with a long horizontal stroke extending to the right.

Allyn Needham, Ph.D., CEA

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Allyn Needham, Curriculum Vita

Prior Testimonies

Fee Schedule



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October 21, 2022

Assignment

My name is Allyn Needham. I have a B.A. in Business Administration from Austin College, an M.A. in Economics from Texas Christian University, and a Ph.D. in Business Administration from California Coast University. I have taught economics at Texas Christian University and Weatherford College. I am a principal with Shipp Needham Economic Analysis, LLC. Through my work, I have provided testimony in federal and state courts in the areas of personal damages, commercial damages, and business bankruptcy. A copy of my current curriculum vitae is attached at the end of this report along with a list of documents reviewed for this analysis.

For this assignment, I have been asked to estimate economic damages incurred by Robert Harris and Ron Cope and their entity, Bulk Trans-Load Authority, LLC (BTA) in their claim against Proppant Express Investments, LLC (PropX) et. al. These calculations include estimating the value of the plaintiffs' intellectual property at the time (October 2021) PropX was sold to Liberty Oilfield Services. They also include royalties the plaintiffs would have received from the usage of the modular boxes through the sale of PropX.

This is a preliminary report and subject to change with new data or information.

Robert Harris, et. al. v Proppant Express Investments, LLC d/b/a PropX, et. al.

Robert Harris, Ron Cope, and BTA sued PropX, Robert Ramus, Chad McEver, Jim Whipkey, Jay Alston, and Red Oak Capital Management, LLC for breach of confidence, breach of fiduciary duty, common-law fraud, fraud of non-disclosure, and civil conspiracy.

According to the plaintiffs' filing, in 2010, the plaintiffs developed a better way for the transportation and storage of proppants to market. They sought a partner for the development of this new technology.

In 2011, plaintiffs and Hi-Crush and part of the ownership of Hi-Crush agreed to a joint venture. Hi-Crush would provide the capital and the plaintiffs would provide the logistics technology. As a part of their agreement to work together, Hi-Crush agreed to not

disclose and not use the plaintiffs' logistical technology for any purpose other than the pursuit of the joint venture.

After a period of developing prototypes and making presentations to prospective customers, Hi-Crush announced they wanted out of the agreement in 2015.

In July 2019, plaintiffs learned Hi-Crush was operating a container division in Colorado. Hi-Crush employees reported being instructed to go around the Harris and Cope patent when developing their logistical technology. Hi-Crush was selling through its container division, which was called PropX. At that time, PropX was owned by Hi-Crush and other investors.

PropX made its first sales in 2016. Harris and Cope claim PropX profited from the use of their logistical technology. Harris, Cope, and their entity, BTA, sued the defendants on January 21, 2020, the same day the U.S. Patent and Trademark Office issued Patent 10,538,381 to Sandbox, an entity to which Harris had assigned his patent rights. The patent states the inventor of the technology is Robert Harris.

In 2017, Sandbox sued PropX for patent infringement for the proppant box technology. PropX's defense was to invalidate the Sandbox patent by pointing to "prior art" that predated Sandbox's technology. PropX pointed to Robert Harris and his work. The court agreed with the PropX argument.

Harris, Cope, and BTA claim the boxes being manufactured and sold by PropX were derived from the logistical technology disclosed to Hi-Crush by the plaintiffs in 2011 and 2012. They claim the technology used and manufactured by PropX was/is the "prior art" argued in the Sandbox case.

(Plaintiffs' Third Amended Petition)

The Frac Sand Industry

"The U.S. is the world's largest producer and consumer of frac sand, and a large percentage of domestic production comes from the Great Lakes region, particularly Wisconsin, Minnesota, and Illinois.

To produce frac sand and ensure the quality is acceptable, mining companies wash and dry the frac sand. Raw sand is removed from the ground and then run through a wet plant that separates it into different grades, with standard mesh sizes including 20/40, 30/50, 40/70, and 100. Once sorted, the wet sand is run through a dry plant to reduce moisture prior to transport. Wet sand, therefore, is considered in process.

Frac sand is integral to hydraulic fracturing, or fracking, as it's injected into the rock formation with the water to fracture rock and prop open the fractures that are created during drilling. Fracking in the U.S. is heavily concentrated in North Dakota, Pennsylvania, and Texas and requires the shipment of frac sand to shale basins 1,000 miles away or more.

Moving frac sand from mine to transload facilities near oil and gas plays is the most significant expense of production and accounts for upwards of 75% of the final cost for some producers, or about \$70 to \$90 per ton shipped. Mines that lack direct access to a railroad spur are forced to truck the sand to rail yards where it can be loaded onto railcars, so it is advantageous for frac sand mines to have a railroad spur on site to keep costs down.” (Industry Insight, Frac Sand, 7/30/2022, Gordon Brothers, www.gordonbrothers.com)

A recent article in the American Oil and Gas Reported appears to support the Gordon Brothers report. “Proppant usage in hydraulic fracturing operations has changed significantly since the advent of shale plays. In the past 10 years, average proppant demand per well has increased from 1.3 million to 15.1 million pounds, representing an increase of 1,061%. The acceleration of demand has spurred innovation toward lower costs, increased surety of supply and improved well performance.

This created a unique problem for forward-thinking suppliers to solve: How do you meet the growing demand while controlling the overall cost of completion?

Ultimately, answering that question led to the discovery of in-basin sand, eliminating the cost of rail and transload handling moves. In addition, miners found ways to reduce the amount of processing the sand undergoes. The increase in proppant consumption per well, along with modern last-mile delivery methods – including hopper bottom trailers and containerized modular delivery – also has spurred innovation in the method and mode in which frac sand is transported and stored at the well site. The confluence of these innovations in both proppant selection and proppant transportation has led to large cost savings, helping to lower break-even costs across North American unconventional basins.” (“Wet Sand” Offers Multiple Benefits, Brain Dorfman, Stephen White, The American Oil & Gas Reporter, August 2021, www.aogr.com)

Mr. Harris’ patent for a proppant box is part of the containerized modular delivery systems mentioned in the American Oil and Gas Reporter article.

The U.S. Geographical Survey 2022 reports, “the most important driving force in the industrial sand and gravel industry remained the production and sale of hydraulic-fracturing sand (frac sand). For several years, the consumption of frac sand increased as hydrocarbon exploration in the United States transitioned to natural gas and petroleum extracted from shale deposits. However, industrial sand and gravel consumption decreased in recent years, primarily as a result of decreased natural-gas-and petroleum-well drilling in North America and oil well completion activity. These decreases were exacerbated by restrictions imposed as the result of the global COVID-19 pandemic, which resulted in a significant decline in consumption of petroleum products, which in turn prompted a decrease in demand for hydraulic-fracturing sand.” (Mineral Commodity Summary 2022, Robert Goodin, U.S. Geographical Survey, rgoodin@usgs.gov, p. 144)

“The duration and outcome of the global COVID-19 pandemic remain uncertain; however, measures previously instituted to mitigate the spread of the global COVID-19 pandemic are expected to continue to be eased or lifted in the United States and around the world. The pandemic is likely to have less of a negative effect on the economies of the United States and the world going forward, which could result in increased production and consumption of industrial sand and gravel.” (Mineral Commodity Summary 2022, Robert Goodin, U.S. Geological Survey, rgoodin@usgs.gov, p. 145)

Yahoo Finance reports, “The latest market analysis report titled Frac Sand Market by Type and Geography – Forecast and Analysis 2022-2026 has been added to Technavio’s catalog. The report predicts the market to witness an accelerating growth momentum at a CAGR [compounded annual growth rate] of 4.53%.” (Yahoo Finance, Frac Sand Market Size Growth, www.yahoo.com)

These reports appear to confirm the demand for frac sand and the transportation modes needed to get the sand to oil and gas drilling sites will increase in the future. This will be a continuation of the growth trend that had begun prior to the COVID-19 pandemic.

Plaintiffs’ Economic Damages

Mr. Harris, Mr. Cope, and their entity BTA have claimed economic losses due to PropX using their intellectual property (new art) in the manufacturing, selling, and/or leasing of their modular boxes for the hauling of frac sand. These calculations consider the three plaintiffs as one and will refer to them as Harris. There will be no division of loss among them only a calculation of losses incurred based on their claim against the defendants.

The economic losses have been shown in two separate calculations. The first will show the value of Harris’ intellectual property when PropX was sold to Liberty Oilfield Services in October 2021. To estimate that value, the yardstick method has been used relying on the value of the intellectual property contributed by Grit Energy Services to the PropX entity. The second will show the estimated loss of royalty payments to Harris based on the royalty rate suggested by Chad McEver. (Chad McEver deposition 8/17/2022, pp. 194-196)

Lost Value of Harris’ Intellectual Property

Mark Kevin Fisher stated in his deposition that Grit Energy Services (Grit) contributed the intellectual property to the PropX enterprise. Hi-Crush and the other investors were to provide the capital to develop and market the boxes. (Mark Kevin Fisher deposition 6/30/2022, p. 124) Scott D’Agostino confirmed Grit contributing the intellectual property to the PropX venture in his deposition. (Scott D’Agostino 6/29/2022, p. 31)

For this contribution, Grit received partial ownership in PropX. The 11/3/2016 table of Class A and B unit ownership in PropX showed Grit having a % ownership position. This percentage of ownership fluctuated above and below 16% ownership. By 1/21/2019, Grit’s ownership percentage was %. (PropX Units / Voting Percentages,

Exhibit 50 from Mark Kevin Fisher deposition 6/30/2022) This appears to be Grit's ownership percentage at the time of PropX's sale.

The ownership of the intellectual property contributed by Grit to the PropX venture is in dispute. Harris has claimed the modular box is based on the design he provided to Hi-Crush in 2011. He worked with Hi-Crush in developing and perfecting the box until Hi-Crush's withdrawal from the project in 2015.

An affidavit provided by Lyle Bolsinger appears to support Harris' claim. At the conclusion of his statement, he writes, "In my opinion and from my observations, the PropX product is derived from and constitutes a knock off of the Harris designs I saw in 2011 and the Harris prototypes I saw in 2014. I say this because other than altering the shape of the opening at the top of the container and the style of dispensing gate, the PropX product operates in the same manner, as a gravity fed portable proppant storage container as the Harris designs I reviewed in 2011 and the prototypes I observed in Augusta, Wisconsin in 2014." (Affidavit by Lyle Bolsinger, 10/12/2022, paragraph 12)

It is my understanding Mr. Harris and Mr. Cope formed BTA as an entity that would have received either royalties or a percentage of ownership in a joint venture with Hi-Crush. BTA, I assume, would have contributed the intellectual property to the discussed joint venture with Hi-Crush as Grit did in the PropX venture. Based on this information and assumptions, these calculations have estimated Harris' loss based on the Grit ownership percentage in PropX.

The ownership percentages in PropX changed between 5/19/2017 and 1/31/2019 as cash calls were made and a new investor was brought on board. The changes in Grit's units and ownership percentage appeared this way.

Dates	Total Units	Grit Units	Grit % Ownership
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According to Mr. Fisher, PropX sold to Liberty ultimate price paid was slightly greater than The due to an increase in the stock price for Liberty Oilfield Services. (Mark Kevin Fisher deposition dated 6/30/2022, pp.114-115)

Exhibit 52 of Mr. Fisher’s deposition shows Grit received \$ from the sale of PropX. Mr. Fisher confirmed a similar amount in his deposition testimony. (Mark Kevin Fisher deposition dated 6/30/2022, p. 113)

If Grit had % ownership in PropX, it appears Grit would have received in proceeds from the sale. No explanation has been given for this \$ difference.

This analysis has used comparable data as a yardstick for valuing the Harris intellectual property. For the yardstick, the proceeds received by Grit from the sale of PropX have been used. Grit having contributed the intellectual property used in developing the PropX modular boxes received ownership in PropX. The proceeds Grit received from the sale of PropX in 2021 reflected the value of Grit’s intellectual property at the time of the sale. Because it is claimed the Harris intellectual property was used in creating Grit’s contributed intellectual property, this analysis assumes the Harris intellectual property has comparable value. Based on the information and assumptions discussed, I conclude the value of Harris intellectual property ranges from \$14,768,000 to \$15,070,000.

Lost Royalties

“The basic framework for constructing reasonable royalty damages is found in the 15 Georgia-Pacific factors. (Georgia-Pacific Corp. v United States Plywood Corp., 318 F.Supp. 1116, (S.D.N.Y. 1970, modified 446 F.2d 295, (2nd Cir. 1971))

The 15 Georgia-Pacific factors are listed below.

- 1) The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.
- 2) The rates paid by the licensee for the use of other patents comparable to the patent in suit.
- 3) The nature and scope of the license, as exclusive or non-exclusive, or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold.
- 4) The licensor’s established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.
- 5) The commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business or whether they are inventor and promotor.
- 6) The effect of selling the patent specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales.
- 7) The duration of the patent and the term of the license.
- 8) The established profitability of the product made under the patent; its commercial success; and its current popularity.

- 9) The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.
- 10) The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who used the invention.
- 11) The extent to which the infringer has made use of the invention; and any evidence probative of the value of its use.
- 12) The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.
- 13) The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.
- 14) The opinion testimony of qualified experts.
- 15) The amount that the licensor (or the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee – who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention – would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.

(The Comprehensive Guide to Lost Profits and Other Commercial Damages, 3rd Ed., Vol. 1, Nancy Fannon, Jonathan Dunitz, BVR, Business Valuation Resources, www.bvresources.com, pp. 631-632)

While not all factors may apply to this analysis, they have provided the context and framework for these calculations.

In its article on patent licensing royalty rates, UpCounsel states, “Essentially, an inventor will enter into a license arrangement to have the manufacturer, publisher, agent, or distributor of the product sell it for the inventor. Since the licensee is doing the legwork, it will be the main party benefiting from selling the product; however, the license arrangement will establish a royalty rate, which is the rate the inventor will receive every time the product sells.” (Patent Licensing Royalty Rates: Everything You Need to Know, 6/24/2020, www.upcounsel.com)

The article goes on to say, “Patent licensing royalty rates are a percentage of the gross or net profit made on each sale of a product. Generally, a royalty is provided between the inventor (the licensor) and manufacturer, publisher, agent, or distributor (the licensee). Essentially, an inventor will enter into a license arrangement to have the manufacturer, publisher, agent, or distributor of the product sell it for the inventor. Since the licensee is doing the legwork, it will be the main party benefiting from selling the product; however, the license arrangement will establish a royalty rate, which is the rate the inventor will receive every time the product sells.” (Patent Licensing Royalty Rates: Everything You Need to Know, 6/24/2020, www.upcounsel.com)

While the use of sales or profits as a base for calculating royalties is generally true, there are other ways of calculating the royalties a licensor is to receive from a licensee. BVResources noted in its report on intellectual property royalty rate trends, “Royalty rate bases have become much more diverse, indicating perhaps that entities have become more confident with their prospects and are, therefore, being more creative with their engagements.” (Intellectual Property Trends: Average royalty rates, most active industries, and more, 4/18/2018, Business Valuation Resources, www.bvresources.com)

This analysis assumes Harris owned the intellectual property used by PropX to manufacture and sell or lease the modular proppant boxes. As the intellectual property contributor, Harris could have received the same value as Grit for its contribution to PropX or could have signed a licensing agreement and received royalty payments instead. There is a middle ground where Harris received a lesser percentage of ownership and a lesser royalty rate but this option has not been considered.

PropX was profitable from 2017 through 2020. Therefore, any royalty formula-based revenue or profitability would have yielded income to Harris. Table A at the end of this report shows PropX’s income statements for the years 2017 through 2020.

“A running royalty that uses sales dollars as the royalty base and a percentage of sales as the royalty rate is not the only form of a running royalty. Another form of a running royalty uses the number of infringing units as a royalty base as a per-unit royalty rate.” (The Comprehensive Guide to Lost Profits and Other Commercial Damages, 3rd Ed. Vol. 1, Nancy Fannon, Jonathan Dunitz, BVR, Business Valuation Resources, 2014, www.bvresources.com, p. 630)

Emails show and deposition testimony confirmed Hi-Crush and the other investors in PropX considered making royalty payments for the intellectual property used in making the modular boxes. Mark D’Agostino reported a royalty format where Grit was to be paid by customers was discussed. The royalty was to be based on usage. The usage was to be valued by the tons of sand delivered by the leased boxes. (Mark D’Agostino deposition 6/28/2022, pp. 79-82)

Mr. D’Agostino went on to explain a 3-2-1 method for calculating the royalty. Based on the amount of tonnage moved, the royalty would be \$3 per ton, \$2 per ton or \$1 per ton. “I’m assuming because said 3-2-1, you know, 3-2-1, \$3 based on levels of usage. You know ten million, its going to \$1 per ton. Five million was going to be 2. I don’t know if that is exactly right, but it was a scale like that.” (Mark D’Agostino deposition 6/28/2022, p. 103)

Chad McEver confirmed he was against the 3-2-1 royalty schedule and wanted to offer a royalty rate of fifty cents per ton. (Chad McEver deposition 8/17/2022, pp. 195-198) The royalty rate of fifty cents per ton of frac sand delivered by the modular boxes to the drilling site is an example of the diverse and creative royalty methods discussed by BVResources.

Mr. McEver also confirmed that ultimately Grit received interest in PropX instead of royalty payments. (Chad McEver deposition 8/17/2022, p. 195)

To estimate the royalty payments Harris would have received had they been the licensor of the intellectual property and not Grit, data from the PropX website has been used. On the home page of their website is a counter which shows the increasing number of pounds of frac sand delivered. On a recent visit (10/19/2022) the PropX website showed delivered pounds of sand at more than 139,754,800,000. (www.propx.com)

It is my understanding that the purchaser of a business that is the licensee of a patent would be notified of the royalty agreement prior to purchase. The sale itself would not end the obligation to pay royalty to the licensor. However, the purchaser may renegotiate the royalty agreement as a part of the purchase of the business. For that reason, this analysis only calculates lost royalty payments through the sale of PropX to Liberty Oilfield Services.

The sale of PropX took place in October 2021. The calculation of lost royalty payments in this matter is taking place in October 2022. For these calculations, it has been assumed an additional 12 months of sand delivery has taken place since Liberty Oilfield Services' purchase of PropX.

Using the pounds of sand delivered figure on the PropX website, the amount of tonnage delivered has been estimated. PropX has been operating since 2016. For these calculations, it has been assumed PropX has been in operation for 7 years (2016 through 2022). When 139,754,800 pounds is divided by 7 years, the result is an average of 19,964,983,571 pounds of sand delivered per year.

This amount has been subtracted from the 139,754,800 pounds delivered to remove sand delivered after the sale of PropX in 2021. The resulting pounds delivered figure was 119,789,901,429. This amount was then divided by 2,000 to determine the amount of tonnage. The amount of tonnage of sand delivered was 59,894,951.

The assumed royalty rate that would have been offered to and accepted by Harris is fifty cents per ton. When \$0.50 is multiplied by the tonnage of sand delivered the royalty to be paid is \$29,947,475.

Estimated lbs. Delivered	139,754,885,000
Annual Average Delivered	<u>19,964,983,571</u>
lbs. Delivered less One Year	119,789,901,429
lbs. per ton	<u>2,000</u>
Tons of Sand Delivered 2016-21	59,894,951
Royalty Rate @ 50 Cents per Ton	<u>0.5</u>
Royalty Payments	29,947,475

Based on the information and assumptions discussed in this section, I conclude Harris lost royalty payments based on fifty cents per ton of frac sand delivered is \$29,947,475.


Conclusion

Based on the information and assumptions discussed in this report and after applying techniques commonly used in the field of economics, I conclude that the economic damages incurred by Harris may be calculated in two ways. The first calculation shows the lost value of the Harris intellectual property. To determine the value, the proceeds received by Grit from the sale of PropX has been used as a yardstick measurement for the value of the Harris intellectual property. The Harris value has been estimated to be between \$14,768,000 and \$15,070,000. The second calculation shows Harris' loss in royalty payments if they had licensed the Harris intellectual property to PropX. The estimated royalty payments are based on a formula discussed by the defendants. That formula was for payment of fifty cents per ton of delivered frac sand. The estimated royalty payments based on this formula are \$29,947,475.

These calculations end with the sale of PropX to Liberty Oilfield Services. If Harris' loss is based on the value of the intellectual property at the time of the PropX sale in 2021, Harris' loss would end with the sale. If Harris' loss is based on royalty payments, losses would be ongoing. This is because Harris would have made PropX the licensee for the modular box for which the patent bears Robert Harris' name as inventor. Additional calculations may be made to project ongoing royalty payments through the end of the patent's life.

Because these loss estimates end with the sale of PropX in October 2021, there have been no calculations of future losses. For that reason, none of the losses have needed to be discounted to present value.

This is a preliminary report and subject to change with new data or information

A handwritten signature in black ink, appearing to read 'Allyn Needham', with a long horizontal stroke extending to the right.

Allyn Needham, Ph.D., CEA

PropX

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Table A

Income Statements

Revenue	2017	2018	2019	2020
Lease Revenue	6,660,992	24,676,458	34,742,353	22,577,964
Sales Revenue	14,038,500	10,270,341	4,528,968	1,146,997
Total Revenue	20,699,492	34,946,799	39,271,321	23,724,961
Cost of Goods Sold				
Cost of Sales Leases	11,658,474	8,277,839	5,617,039	805,695
Write Off of Lost Boxes	0	0	0	511,988
CoGS - Sales	0	0	0	886,329
Repairs & Maintenance	0	261,282	811,650	658,101
Depreciation	2,432,899	8,060,071	11,762,708	12,834,920
Total CoGS	14,091,373	16,599,192	18,191,397	15,697,033
Gross Income	6,608,119	18,347,607	21,079,924	8,027,928
Expenses				
Salaries & Benefits	1,943,029	2,735,889	3,418,080	3,147,336
General & Administration	1,179,045	1,630,490	1,974,625	1,490,061
Bad Debt	0	0	0	1,093,091
Software Expense	407,804	249,394	27,457	0
Amortization	318,110	748,528	1,007,434	1,052,795
Interest Expense	0	0	449,295	558,541
Total Expenses	3,847,988	5,364,301	6,876,891	7,341,824
Operating Income	2,760,131	12,983,306	14,203,033	686,104
Other Income	0	0	18,224	24,634
Income Tax Expense	0	0	88,110	-7,417
Net Income	2,760,131	12,983,306	14,133,147	718,155
EBITDA	5,511,140	21,791,905	27,440,694	15,156,994
Cash Flow	7,494,933	13,599,346	-22,051,588	

Documents Reviewed

In preparing this report, my review included, but was not limited to, the following.

1. Plaintiff's Third Amended Petition,
2. Hi-Crush Partners LP Form 10K 2015, 2016, 2017, 2018,
3. Hi-Crush Partners LP Form 10Q 1st Q, 2ndQ, 3rdQ, 2019,
4. Rob Crawley Deposition dated August 18, 2022, with Exhibits 99-104,
5. Kevin Fisher Deposition dated June 30, 2022, with Exhibits 49-66,
6. Mark D'Agostino Deposition dated June 28, 2022, with Exhibits 1-37,
7. Chad McEver Deposition dated August 17, 2022, with Exhibits 67-98,
8. Scott D'Agostino Deposition dated June 29, 2022, with Exhibits 38-48,
9. Employment agreement between SandBox Logistics and Robert Harris dated August 29, 2015, P001571-P001580,
10. Intellectual Property Assignment and Royalty Agreement dated August 28, 2015, P001581-P001586,
11. Email to Kevin Fisher & William Barker on 7/26/16, HC0000461-HC0000463,
12. Patent Assignment Filing September 24, 2012,
13. United States Patent, January 21, 2020,
14. Video Deposition of Gary Wooley dated June 19, 2019 HICRUSH_Harris005647-5716,
15. Video Deposition of Gary Wooley dated December 20, 2018, HICRUSH_Harris005717-5934,
16. Video Deposition of Gary Wooley dated September 13, 2018, HICRUSH_Harris006057-6338,
17. Capital IQ, P000001-P000061,
18. Emails, P000099-103, P000104-105, P000121-123, P000133,
19. BTA, P000134-135, P000136-137,
20. Emails Invoices P000150-151, P000171, P000175-176,
21. Draft on Non-Binding Letter of Intent dated April 20, 2012, P000200-201,
22. Term Sheet, P000202, P000234,
23. Emails, P000226-231, P000299-301, P000302-304, P000305-306, P000333-343, P000416-417, P000427-429, P000536-537, P000570-573, P000587-588, P000606-607, P000622, P000623-624, P000627-628, P000637, P000770-771, P000811-812, P000897, P000913-915, P000923-925, P000947, P000950-970, P001021-1023, P001055, P001090-1091, P001092, P001304-1305,
24. Draft on Non-Binding Letter of Intent dated April 20, 2012, P000232-233,
25. US Patent and Trademark Filing Receipt 10/03/2011, P000258-269,
26. SandBox Production Report April 1, 2016, P000528
27. BTA Portable Fracturing Proppant Storage Bins, P000537,
28. Portable Storage Business Plan, PowerPoint P000555,
29. Intellectual Property Assignment and Royalty Agreement, P000572,
30. Employment Agreement, P000573,
31. Portable Storage Bin Lease Agreement, P000588,

32. Bulk Trans-Load Authority, P000607,
33. Portable Storage Analysis, P000624,
34. Grit Energy Solutions Inc., P000686-717,
35. Intellectual Property Lease Agreement, P000771,
36. Bulk Trans-load Authority, P000812,
37. Harris Employment Agreement, P000915,
38. Harris Employment Agreement Final, P000963,
39. Intellectual Property Assignment and Royalty Agreement, P000970,
40. Non-binding Letter of Intent, P001091,
41. Certificate of Filing, P001185-001228,
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57. The Comprehensive Guide to Lost Profits and Other Commercial Damages, 3rd Ed., Vol. 1, Nancy Fannon, Jonathan Dunitz, BVR, Business Valuation Resources, www.bvresources.com.

I spoke with Derrick Boyd or Jesse King by telephone on multiple dates to discuss details in this case and on other occasions to clarify information relating to this matter.

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EDUCATIONAL EXPERIENCE

Ph.D.	Business Administration	1997	California Coast University
M.A.	Economics	1990	Texas Christian University
B.A.	Business Administration and Economics	1978	Austin College

ACADEMIC EXPERIENCE

Institution	Title	Dates	Course Taught
Weatherford College	Adjunct Professor	1997-1999	Macroeconomics, Microeconomics
Texas Christian University	Adjunct Professor	1994-1997	Macroeconomics
Texas Christian University	Guest Lecturer	1994-2015	Macroeconomics, Securities Analysis, Sales Management, Expert's Role in Conflict Resolution

PROFESSIONAL EXPERIENCE

Consulting Economist (1997-present) Shipp Needham Economic Analysis, LLC
(Formerly, Floyd Durham & Associates & Shipp, Needham & Durham, LLC)

Duties include providing litigation support for clients by analyzing economic issues related to:

* Personal injury	* Business Interruption
* Wrongful death	* Business Valuation
* Wrongful termination	* Lost profits
* Household Services	* Business Bankruptcy

Contributing author to ***Determining Economic Damages*** (James Publishing).

Contributing author to ***Guide to Litigation Support Services*** regarding Lost Profits (Practitioner's Publishing Company).

Previous Professional Experience (1978-1997)

Prior to joining Shipp Needham Economic Analysis, I spent twenty years in manufacturing, banking, and insurance. Manufacturing experience includes acting as treasurer of Jay Needham, Inc., a commercial refrigeration manufacturer (1978-1980), and Vice President and CFO of Bob Bryan Enterprises, a musical accessory manufacturer (1994). Banking experience includes vice presidencies of Texas American Bank (1980-1984), Hulen National Bank (1984-1985), and Texas Commerce Trust Company (also known as MTrust) (1987-1993). Insurance experience (1994-1997) includes being a Registered Representative of New York Life Insurance Company.

CONTINUING EDUCATIONAL EXPERIENCE

American Rehabilitation Economics Association 2022,
Collegium of Pecuniary Damages Experts Conference 2022,
National Association of Certified Valuators and Analysts, Consultant Training Institute, Hybrid & Virtual Winter Conference, 2021
Collegium of Pecuniary Damages Experts Conference, 2021
American Rehabilitation Economics Association Virtual Conference 2021
National Association of Certified Valuators and Analysts, Virtual Super Conference, August 2020
National Association of Certified Valuators and Analysts, Virtual Super Conference, June 2020
National Association of Certified Valuators and Analysts, Annual Conference, 2019
American Rehabilitation Economics Association, 2019
National Association of Certified Valuators and Analysts, Financial Valuation Super Conference, 2018
American Rehabilitation Economics Association Conference 2018
National Association of Certified Valuators and Analysts, Annual Conference 2018
American Rehabilitation Economics Association Conference 2017
Collegium of Pecuniary Damages Experts Conference 2017
American Rehabilitation Economics Association Conference 2016
Collegium of Pecuniary Damages Experts Conference 2016
American Rehabilitation Economics Association Conference 2015
Collegium of Pecuniary Damages Experts Conference 2015
American Rehabilitation Economics Association Conference 2014
Collegium of Pecuniary Damages Experts Conference 2014
American Rehabilitation Economics Association Conference 2013
Collegium of Pecuniary Damages Experts Conference 2013
American Rehabilitation Economics Association Conference 2012
International Association of Rehabilitation Professionals – Forensic Conference 2011
American Rehabilitation Economics Association Conference 2011
American Rehabilitation Economics Association Conference 2010
American Rehabilitation Economics Association Conference 2009
American Rehabilitation Economics Association Conference 2008

National Association of Forensic Economics – Winter Meeting 2008
American Rehabilitation Economics Association Conference 2007
National Association of Forensic Economics – Winter Meeting, 2007
American Rehabilitation Economics Association Conference, 2006
National Litigation Support Services Association Conference, 2006
American Rehabilitation Economics Association Conference, 2005
Southern Economic Association, NAFE Conference, 2004
American Rehabilitation Economics Association Conference, 2004
American Rehabilitation Economics Association Conference, 2003
American Rehabilitation Economics Association Conference, 2002
Southern Economic Association Joint NAFE / AREA / AAEFE Conference, 2001
American Rehabilitation Economics Association Conference, 2001
National Litigation Support Services Association Conference, 2001
American Rehabilitation Economics Association Conference, 2000
National Advanced Litigation Services Conference, AICPA, 1999
Southwestern Social Sciences Association, NAFE Conference, 1999
Southwestern Social Sciences Association, NAFE Conference, 1998

Mastering Appraisal Skills for Valuing the Closely Held Business,
Institute of Business Appraisers, 1998

RELATED CONTINUING EDUCATION

Intermediate School of Banking, Southern Methodist University, 1985
Introduction to Commercial Lending, American Institute of Banking, 1982
Analyzing Financial Statements, American Institute of Banking, 1982
Principles of Banking, American Institute of Banking, 1981

PROFESSIONAL / CIVIC MEMBERSHIPS

National Association of Forensic Economics
American Rehabilitation Economics Association
 President, 2019-21
 President, 2005-06
 Certified Earnings Analyst, since 2000
Collegium of Pecuniary Damages Experts
 President, 2016-17
American Academy of Economic and Financial Experts
National Association of Certified Valuators and Analysts

Member of Quick Read Editorial Board, since 2020

Received Outstanding Member Award from the National Association of Certified
Valuators and Analysts in 2021

Served on Board of Editors / Referees for the following:

The Earnings Analyst,
Journal of Forensic Economics
Journal of Legal Economics

Southwestern Society of Economics
President, 1994-1995
United States Soccer Federation, Licensed Coach

PUBLICATIONS

Looking Back to Go Forward: A Review of the Basics for Lost Profits (Part II), **Quick Read**, National Association of Certified Valuators and Analysts, 8/31/2022, <https://quickreadbuzz.com/2022/08/31/litigation-allyn-needham-looking-back-to-go-forward-2/>

Looking Back to Go Forward: A Review of the Basics for Lost Profits (Part I), **Quick Read**, National Association of Certified Valuators and Analysts, 8/24/2022, <https://quickreadbuzz.com/2022/08/24/litigation-allyn-needham-looking-back-to-go-forward/>

"Daubert Challenge: End of Life or Another Day at the Office," **Quick Read**, National Association of Certified Valuators and Analysts, 5/31/2022, <https://quickreadbuzz.com/2022/05/31/litigation-allyn-needham-daubert-challenge/>

"Lost Profits: Revisiting the Energy Capital Corp. v United States Case," **Quick Read**, National Association of Certified Valuators and Analysts, 3/17/2022, <https://quickreadbuzz.com/2022/03/16/litigation-consulting-allyn-needham-lost-profits/>

"COVID-19's Impact on Lost Profits Calculations," **The Value Examiner**, January/February 2022, National Association of Certified Valuators and Analysts, www.NACVA.com/TVE

"Lost Profits and COVID-19: A Unique Take on Causation," **Quick Read**, National Association of Certified Valuators and Analysts, 12/1/2021, <http://quickreadbuzz.com/2021/12/01/litigation-consulting-allyn-needham-lost-profits-and-covid-19/>

"Estimating the Economic Loss of the Self-Employed: Lost Profits or Lost Earning Capacity," **The Value Examiner**, September/October 2021, National Association of Certified Valuators and Analysts, www.NACVA.com/TVE

"Lost Profits: Question from the NACVA Conference Regarding Discounting Lost Earnings for Self-Employed Individuals," **Quick Read**, National Association of Certified Valuators and Analysts, 9/8/2021, <http://quickreadbuzz.com/2021/09/08/valuation-litigation-allyn-needham-lost-profits/>

"Assessing Lost Profits After the COVID-19 Pandemic," **Quick Read**, National Association of Certified Valuators and Analysts, 5/24/2021, <http://quickreadbuzz.com/2021/05/26/valuation-litigation-allyn-needham-assessing-lost-profits/>

"Lost Profits: Moving Forward During COVID-19," **Quick Read**, National Association of Certified Valuators and Analysts, 2/24/2021, <http://quickreadbuzz.com/2021/02/24/bv-litigation-allyn-needham-lost-profits/>

“Case Study: Changing Assignments from Fairness Opinion to Business Valuation,” **Quick Read**, National Associations of Certified Valuators and Analysts, 1/13/2021, <http://quickreadbuzz.com/2021/01/13/valuation-litigation-allyn-needham-case-study/>

“Chapter 11 Bankruptcy, Expert Assignments and COVID-19,” **Quick Read**, National Association of Certified Valuators and Analysts, 8/19/2020, Co-authors J. Robert Forshey & Dylan Ross, <http://quickreadbuzz.com/2020/08/19/litigation-needham-forshey-chapter-11-bankruptcy/>

“Covid-19, Proximate Cause and its Impact on Lost Profits Calculations,” **Quick Read**, National Association of Certified Valuators and Analysts, 7/22/2020, <http://quickreadbuzz.com/2020/07/22/litigation-allyn-needham-covid-19-proximate-cause/>

“Lost Profits and Discount Rates: What Do the Courts Want?,” **Quick Read**, National Association of Certified Valuators and Analysts, 3/11/2020, <http://quickreadbuzz.com/2020/03/11/litigation-consulting-allyn-needham-lost-profits-and-discount-rates/>

“Case Study – Royalties and Lost Profits from Intellectual Property Infringement,” **Quick Read**, National Association of Certified Valuators and Analysts, 12/18/2019, <http://quickreadbuzz.com/2019/12/18/litigation-allyn-needham-case-study-royalties-and-lost-profits-infringement/>

“Lost Profits, Modern New Business Rule and How it Has Been Applied by the Courts,” **Quick Read**, National Association of Certified Valuators and Analysts, 8/7/2019, <http://quickreadbuzz.com/2019/08/07/litigation-needham-lost-profits-2/>

“Lost Profits, Modern New Business Rule and Defense Strategies Beyond Reasonable Certainty,” **Quick Read**, National Association of Certified Valuators and Analysts, 3/6/2019, <http://quickreadbuzz.com/2019/03/06/litigation-needham-lost-profits-new-business-rule/>

“Lost Profits: Fifth Circuit Decision Clarifies Reasonable Certainty for the Modern New Business Rule,” **Quick Read**, National Association of Certified Valuators and Analysts, 2/27/2019, <http://quickreadbuzz.com/2019/02/27/litigation-needham-lost-profits/>

“Discounting Lost Profits to Present Value, *Ex ante*, *Ex post* and Hybrid Methodologies,” **Quick Read**, National Association of Certified Valuators and Analysts, 9/19/2018, <http://quickreadbuzz.com/2018/09/19/discounting-lost-profits-to-present-value/>

“Unique Circumstances When Calculating Lost Profits: Reliability of Client’s Data,” **Quick Read**, National Association of Certified Valuators and Analysts, 6/13/2018, <http://quickreadbuzz.com/2018/06/13/unique-circumstances-when-calculating-lost-profits/>

“Commercial Damages and Lost Profits: Case Study of a Real Estate Developer,” **Quick Read**, National Association of Certified Valuators and Analysts, 3/28/2018, <http://quickreadbuzz.com/2018/03/28/commercial-damages-and-lost-profits/>

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“Unsecured Creditors: Risk and Cramdown Rates (Part I of II),” **Quick Read**, National Association of Certified Valuators and Analysts, 11/21/2017, <http://quickreadbuzz.com/2017/11/21/chapter-11-bankruptcy/>

“Business Interruption: A Unique Assessment of Commercial Damages,” **Quick Read**, National Association of Certified Valuators and Analysts, 9/20/2017, <http://quickreadbuzz.com/2017/09/20/business-interruption/>

“Revisiting Modeling and Discounting Future Damages The Case for Use of a Risk-Adjusted Rate in Damages Cases,” **Quick Read**, National Association of Certified Valuators and Analysts, 5/30/2017, <http://quickreadbuzz.com/2017/05/31/revisiting-modeling-discounting-future-damages/>

“Revisiting Modeling for Future Lost Profits,” **Quick Read**, National Association of Certified Valuators and Analysts, 3/29/2017, <http://quickreadbuzz.com/2017/03/29/revisiting-modeling/>

“Lost Profits and Other Commercial Damages: A Case Study (Part II of II),” **Quick Read**, National Association of Certified Valuators and Analysts, 12/20/2016, <http://quickreadbuzz.com/2016/12/20/lost-profits-commercial-damages-3/>

“Lost Profits and Other Commercial Damages: A Case Study (Part I of II),” **Quick Read**, National Association of Certified Valuators and Analysts, 12/14/2016, <http://quickreadbuzz.com/2016/12/14/lost-profits-commercial-damages-2/>

“Discount Rates for Determining the Present Value of Different Types of Pecuniary Damages – 2016,” **The Earnings Analyst**, Vol. 15, 2016, (Online) www.TheEarningsAnalyst.com, Co-authors Joseph Rosenberg, Rob Schlegel,

“Analyzing Lost Earning Capacity for the Self-Employed, Income of Partners and Owners of Pass-through Entities (Part II of II),” **Quick Read**, National Association of Certified Valuators and Analysts, 8/17/2016, <http://quickreadbuzz.com/2016/08/17/analyzing-lost-earning-capacity-self-employed-2/>

“Analyzing Lost Earning Capacity for the Self-Employed, Income of Partners and Owners of Pass-through Entities (Part I of II),” **Quick Read**, National Association of Certified Valuators and Analysts, 8/10/2016, <http://quickreadbuzz.com/2016/08/10/analyzing-lost-earning-capacity-self-employed/>

“Foreseeability Standard in Lost Profits Litigation,” **Quick Read**, National Association of Certified Valuators and Analysts, 5/18/2016, <http://quickreadbuzz.com/2016/05/18/foreseeability-standard-lost-profits-litigation/>

“Including Causation in a Lost Profits Analysis,” **Quick Read**, National Association of Certified Valuators and Analysts, 4/20/2016, <http://quickreadbuzz.com/2016/04/20/including-causation-lost-profits-analysis/>

“Reasonable Certainty in Lost Profits Calculations,” **Quick Read**, National Association of Certified Valuers and Analysts, 1/6/2016,
<http://quickreadbuzz.com/2016/01/06/reasonable-certainty-in-lost-profits-calculations/>

“The Present Value of Future Lost Profits and the Time Value of Money,” **Quick Read**, National Association of Certified Valuers and Analysts, 12/16/2015,
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“Terms of Art: Understanding the Language of Chapter 11 Cramdown,” **Quick Read**, National Association of Certified Valuers and Analysts, 9/9/2015,
<http://quickreadbuzz.com/2015/09/09/terms-of-art/>

“Financial Experts in Chapter 11 Bankruptcies: Unique Situations from Common Assignments,” Repost via Link of Quick Read Article Published 4/22/2015,
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<http://blogs.law.harvard.edu/bankruptcyroundtable/2015/07/28/financial-experts-in-chapter-11-bankruptcies-unique-situations-from-common-assignments/>

“Commercial Real Estate, Chapter 11 Bankruptcy, Cram Down Interest Rates, Part 2 of 2,” **Quick Read**, National Association of Certified Valuers and Analysts, 6/3/2015,
<http://quickreadbuzz.com/2015/06/03/commercial-real-estate-chapter-11-bankruptcy-2/>

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<http://quickreadbuzz.com/2015/05/27/commercial-real-estate-chapter-11-bankruptcy/>

“Financial Experts in Chapter 11 Bankruptcies, Unique Situations from Common Assignments,” **Quick Read**, National Association of Certified Valuers and Analysts, 4/22/2015, <http://quickreadbuzz.com/2015/04/22/financial-experts-in-chapter-11-bankruptcies/>

“Recommended Change Not Needed for Chapter 11 Cramdown Rates,” **Quick Read**, National Association of Certified Valuers and Analysts, 3/11/2015,
<http://quickreadbuzz.com/2015/03/11/recommended-change-not-needed-for-chapter-11-cramdown-rates/>

“Difficulty with Applying the Contract Rate Approach to Chapter 11 Bankruptcy, A Case Study Part 2 of 2,” **Quick Read**, National Association of Certified Valuers and Analysts, 1/21/2015, <http://quickreadbuzz.com/2015/01/21/contract-rate-approach-chapter-11-bankruptcy-2/>

“Difficulty with Applying the Contract Rate Approach to Chapter 11 Bankruptcy, A Case Study Part 1 of 2,” **Quick Read**, National Association of Certified Valuers and Analysts, 1/14/2015, <http://quickreadbuzz.com/2015/01/14/contract-rate-approach-chapter-11-bankruptcy/>

“The Role of an Economic Expert in Chapter 11 Bankruptcy Matters: Common & Unique Engagements”, **The Earnings Analyst**, Vol. 14, 2014, (Online January 2015),
www.TheEarningsAnalyst.com

“Three Common Roles for Financial Experts in Chapter 11 Bankruptcies, Part 2”, **Quick Read**, National Association of Certified Valuers and Analysts, 11/12/2014, <http://quickreadbuzz.com/2014/11/12/three-common-roles-for-financial-experts-2/>

“Three Common Roles for Financial Experts in Chapter 11 Bankruptcies, Part 1 of 2”, **Quick Read**, National Association of Certified Valuers and Analysts, 11/4/2014, <http://quickreadbuzz.com/2014/11/04/three-common-roles-financial-experts/>

“Commercial Real Estate, Chapter 11 Bankruptcy & Cram Down Interest Rates”, **The Earnings Analyst**, Vol. 13, 2013, (Online Fall 2014), www.TheEarningsAnalyst.com, Co-author Kristin Schroeder

“Cram Down Interest Rate Analysis in Chapter 11 Bankruptcy Matters: An Overview”, **The Earnings Analyst**, Vol. 12, 2012, (Online Winter 2013), www.TheEarningsAnalyst.com, Co-author Kristin Schroeder

“Alcohol and Drug Abuse and Its Impact on Employment and Earnings for Blue Collar Workers”, **TARPPS (IARP-Texas), Summer Journal 2012**, Co-author Shannon Shipp

“The Impact of Criminal Convictions on Calculations of Lost Earnings in Personal Injury and Wrongful Death: Issues for Forensic Economics and Vocational Assessment”, **Journal of Forensic Economics**, Vol. XVII, Numbers 2-3, Spring / Summer 2005 – Fall 2005, (Published July 2006), Co-author Shannon Shipp

“Substance Abuse and Its Impact on Employment and Earnings for Blue Collar Workers”, **The Earnings Analyst**, Vol. VIII, May 2006, Co-author Shannon Shipp

“The Impact of Recidivism on Projecting Future Earnings for Individuals with a History of Correctional Supervision”, **Journal of Forensic Economics**, Vol. XVI, Number 3, Fall 2003 (Published October 2004), Co-author Shannon Shipp

“Surviving A Daubert Challenge: A Survey of Attorneys”, **The Earnings Analyst**, Vol. V, May 2003.

PPC’s Personal Damage Specialist Calculator and Report Writer for Personal Injury, Wrongful Death, and Wrongful Termination Cases, Practitioner’s Publishing Corporation, 1st Edition, 1999, 2nd Edition 2002, Co-author Shannon Shipp

“Using TIPS and Non- Indexed Treasury Securities to Project Future Inflation”, **The Earnings Analyst**, Vol. IV, May 2001. Co-author Shannon Shipp

“Placing a Value on Lost Active Leisure”, **2001 Expert Witness Update New Developments in Personal Injury Litigation**, Chapter 8, Aspen Law & Business, New York, New York, 2001. Co-author Shannon Shipp

“The Value of Active Leisure”, **The Earnings Analyst**, Vol. III, May 2000. Co-author Shannon Shipp

“The Concept of the Value of Active Leisure”, **Southwestern Economic Proceedings Selected Papers**, Vol. 27, No. 1, 2000. Co-author Shannon Shipp

“An Overview in Worklife Expectancy Technique: An Analysis of the DOL Worklife Tables v LPE”, **Southwestern Economic Proceedings Selected Papers**, Vol. 26, No.1, 1999. Co-author Shannon Shipp

“Inflation Exposure: The Case of the American Pharmaceutical Industry”, **Southwestern Economic Review**, Vol. 24, No.1, 1997. Co-author Charles Becker

“The American Pharmaceutical Industry in the 1990’s: A Statistical Overview”, **Southwestern Economic Review**, Vol. 23, No. 1, 1996. Co-author Charles Becker

“Fulfilling Market Expectations: A Preliminary Study of Youth Soccer in Fort Worth, Texas”, **Southwestern Economic Proceedings Selected Papers**, Vol. 22, No. 2, 1995.

“An Analysis of the Impact of Two Potential Health Care Reforms: The Case of the North American Pharmaceutical Industry”, **Southwestern Economic Review**, Vol. 22, No. 1, 1995. Co-author Charles Becker

“A Solution to the Impact of Probable Health Care Reform: The Case of the North American Pharmaceutical Industry”, **Southwestern Journal of Economic Abstracts**, Vol. 15, No. 1, 1994. Co-author Charles Becker

“Savings, Debt and Long Term Interest Rates: A Practitioner’s Perspective”, **Southwestern Economic Proceedings Selected Papers**, Vol. 20, No. 2, 1993. Co-author Charles Becker

“A Contrarian View of the Manufacturers Hanover / Chemical Bank Merger”, **The International Journal of Finance**, Dec. 1993. Co-author Charles Becker

“The Manufacturers Hanover / Chemical Bank Merger: A Contrarian Perspective”, **Southwestern Journal of Abstracts**, Vol. 13, No. 1, 1992. Co-author Charles Becker

“Using T-Bills and Moving Averages to Create a Buy/ Sell Strategy for Utility Stocks”, **Journal of the Southwestern Society of Economists**, Vol. 19, No.1, 1992. Co-author Charles Becker

“A Non-Quantitative Approach to Investment Risk”, **Southwestern Journal of Abstracts**, Vol. 12, No. 1, 1991. Co-author Charles Becker

“Using a TBill Buy/Sell Model in Tandem with a Moving Average”, **Journal of the Southwestern Society of Economists**, Vol. 18, No.1, 1991. Co-authors Charles Becker, Harold Drummond

“The Practical Use of Moving Averages to Determine Bond Market Trends”, **Southwestern Journal of Economic Abstracts**, Vol. 11, No. 1, 1990. Co-author Charles Becker

“U.S. 90 Day Treasury Bills Rates as a Stock Market Indicator”, **Journal of the Southwestern Society of Economists**, Vol. 16, No. 1, 1989. Co-authors Charles Becker, Harold Drummond

PRESENTATIONS

Rebroadcast of “Lost Profits in Commercial Litigation: Proving and Defending Damages,” CLE Webinar, Strafford Publications, Inc., (1.5 CLE credit), 6/9/2022, co-presenters Derrick Boyd, Cameron Byrd, Joseph Lesovitz, Answered questions live for June attendees

“Intermediate Boot Camp – Estimating Lost Earning Capacity and Mitigation from the Ground Up, American Rehabilitation Economic Association, Annual Conference, May 28, 2022

“Elements of a Lost Profits Engagement,” Collegium of Pecuniary Damages Experts Conference, April 23, 2022, Henderson, Nevada, co-presenter Jeremiah Grant

“Lost Profits in Commercial Litigation: Proving and Defending Damages,” CLE Webinar, Strafford Publications, Inc., (1.5 CLE credit), 3/10/2022, co-presenters Derrick Boyd, Cameron Byrd, Joseph Lesovitz

“Impact of COVID-19 on Causation,” National Association of Certified Valuators and Analysts, Hybrid & Virtual Winter Conference, Ft. Lauderdale, Florida, December 16, 2021

Around the Valuation World Morning Show, Panelist to discuss session on the impact of COVID-19 when calculating commercial damages in litigation, National Association of Certified Valuators and Analysts, Hybrid & Virtual Winter Conference, Fort Lauderdale, Florida, December 16, 2021

“Personal Goodwill – When Do We See It?” Collegium of Pecuniary Damages Experts, Henderson, Nevada, September 24, 2021, co-presenter Rob Schlegel

“Impact of COVID-19 on Causation,” Collegium of Pecuniary Damages Experts, Henderson, Nevada, September 25, 2021

“Estimating Economic Loss of the Self-Employed – Lost Profits or Lost Earning Capacity,” National Association of Certified Valuators and Analysts, Hybrid & Virtual Super Conference, June 24, 2021

“Intermediate Boot Camp - Estimating Personal Injury and Wrongful Death Damages: Making the Calculations and Critiquing an Opposing Expert’s Work,” American Rehabilitation Economics Association, Virtual Conference, May 20, 2021

“Lost Profits in Commercial Litigation: Proving and Defending Damages,” CLE Webinar, Strafford Publications, Inc., (1.5 CLE credit), March 10, 2021, co-presenters Derrick Boyd, Cameron Byrd, Joseph Lesovitz

“Assessing Economic Damages of the Self-Employed: A Fundamental Review of Vocational & Economic Techniques for Estimating Lost Earning Capacity and Lost Economic Support,” IARP Virtual Annual Conference, October 7, 2020, co-presenter Neil Bennett

“Lost Profits and the Modern New Business Rule – How it Works and How Defendants Try to Attack it,” National Association of Certified Valuators and Analysts, Virtual Super Conference, August 6, 2020

“Lunch and Learn with Financial Litigation Experts,” National Association of Certified Valuators and Analysts, Virtual Super Conference, June 18, 2020, co-presenter Rebekah Smith

“Lost Profits and the Modern New Business Rule – How it Works and How Defendants Try to Attack it,” National Association of Certified Valuators and Analysts, Virtual Super Conference, June 18, 2020

“Lost Profits – Methodology, Court Standards, and Discounting to Present Value,” Financial Valuation Super Conference, National Association of Certified Valuators and Analysts, Ft. Lauderdale, Florida, December 10, 2019

“Lost Profits in Commercial Litigation: Proving and Defending Damages,” CLE Webinar, Strafford Publications, Inc., (1.5 CLE credit), September 25, 2019, co-presenter Jeffrey Totten

“Methodologies for Discounting Lost Profits – Ex Ante, Ex Post, and Hybrid,” Annual Conference, National Association of Certified Valuators and Analysts, Salt Lake City, Utah, June 7, 2019

“Challenges and Pitfalls in Expert Testimony,” American Rehabilitation Economics Association, Ft. Lauderdale, Florida, May 25, 2019, co-presenters Jeffrey Joy, Steve Bast

“Intermediate Boot Camp, Estimating Damages for Personal Injury and Wrongful Death: Knowing and Using the Right Tools,” American Rehabilitation Economics Association, Ft. Lauderdale, Florida, May 23, 2019

“Estimating the Economic Losses of the Self-Employed – Lost Profits or Lost Earning Capacity,” Financial Valuation Super Conference, National Association of Certified Valuators and Analysts, Ft. Lauderdale, Florida, December 12, 2018

“Lost Earning Capacity of Long Haul Truck Drivers: Independent vs. Rank & File Truckers,” American Rehabilitation Economics Association, Austin, Texas, June 22, 2018

“Introduction to Lost Profits – An Overview of Methodology, Discounting, and How They Work in Real Life,” Annual Conference, National Association of Certified Valuators and Analysts, Las Vegas, Nevada, June 20, 2018

“Analyzing the Lost Earning Capacity of the Self Employed,” Dallas Bar Association, North Dallas Clinic, Dallas, Texas, June 9, 2017, (provided 1.00 MCLE credit)

“Intermediate Boot Camp – Back to Basics: Present Value Calculations,” American Rehabilitation Economics Association, San Diego, California, May 11, 2017

“Lost Earning Capacity and Lost Earnings of the Self-Employed,” Collegium of Pecuniary Damages Experts, Las Vegas, Nevada, April 1, 2017, co-presenter Gregson Parker

“Commercial Damages: A Case Study,” Collegium of Pecuniary Damages Experts, Las Vegas, Nevada, March 31, 2017

“How to Determine True Income through the Review of an Individual’s Tax Returns,” American Rehabilitation Economics Association, Philadelphia, Pennsylvania, June 4, 2016, co-presenter George McLaughlin, (replaced Ygnacio Garza)

“Intermediate Boot Camp - Assessing Economic Damages of the Self Employed: A Fundamental Review for Estimating Lost Earning Capacity, Lost Economic Support, and Loss of Business Value,” American Rehabilitation Economics Association, Philadelphia, Pennsylvania, June 2, 2016

“Calculating Lost Profits Including Appropriate Discount Rates,” Collegium of Pecuniary Damages Experts, Las Vegas, Nevada, March 18, 2016, co-presenter Jeremiah Grant

“Collaboration with Forensic Economists: Understanding Their Work,” 2016 International Leisure and Learn Workshop, Collaboration: The Essence of Effective Life Care Planning, Ajijic, Mexico, March 11, 2016

“Projecting Future Recidivism for Former Offenders,” American Rehabilitation Economics Association, Reno, Nevada, June 6, 2015, co-presenter Shannon Shipp

“Intermediate Boot Camp - Estimating Lost Earning Capacity: Fitting Facts, Statistics & Models Together,” American Rehabilitation Economics Association, Reno, Nevada, June 4 -5, 2015

“Discount Rates for Different Types of Pecuniary Damages 2015,” Issues & Practices 2015, Collegium of Pecuniary Damages Experts, Las Vegas, Nevada, March 19, 2015, co-presenters Joseph Rosenberg, Robert Schlegel

“Chapter 11 Bankruptcy, Cram Down Rates, & the Contract Rate Approach,” Collegium of Pecuniary Damages Experts, Las Vegas, Nevada, March 21, 2014

“The Ins and Outs of Present Value Calculations – A review of the Three Commonly Accepted Methods,” National Association of Certified Valuators and Analysts, Litigation Consulting Webinar Series, November 7, 2013, (webinar provided 1.0 CPE credit for NACVA members)

“Fun with Numbers (Not) ... The Ins and Outs of Present Value Calculations,” American Rehabilitation Economics Association, New Orleans, Louisiana, May 4, 2013

“Intermediate Boot Camp - Calculating Lost Earning Capacity: Spreadsheet Preparation,” American Rehabilitation Economics Association, New Orleans, Louisiana, May 2 – 3, 2013

“Role of an Economic Expert in Chapter 11 Bankruptcy Matters,” Collegium of Pecuniary Damages Experts, Las Vegas, Nevada, March 23, 2013

“Do Former Prisoners Earn Less? Impact of Correctional Supervision on Earnings,” IARP Webinar Series, June 27, 2012, (webinar provided 2.0 CEU’s for IARP members)

“Intermediate Boot Camp,” American Rehabilitation Economics Association, Seattle, Washington, June 7 – 8, 2012

“Returning Past Offenders to Work: Do Former Prisoners Earn Less? – Impact of Correctional Supervision on Earnings”, Texas Association of Rehabilitation Professionals and Providers of Services, Winter All Day Seminar 2012, Plano, Texas, February 24, 2012

“Do Former Prisoners Earn Less? – Impact of Correctional Supervision on Earnings”, International Association of Rehabilitation Professionals – Forensic Conference, Las Vegas, Nevada, November 5, 2011

“Ethical Issues in the Interface between Vocational and Economic Experts”, American Rehabilitation Economics Association, Chicago, Illinois, June 11 – 14, 2009, co-presenter - Shannon Shipp, Ph.D.

“Boot Camp ‘Determining Personal Damages 201’”, Pre-Conference Session, American Rehabilitation Economics Association, Chicago, Illinois, June 11 – 14, 2009, co-presenters – Kevin Marshall, J.D., MPA, Shannon Shipp, Ph.D., (course provided one hour of graduate credit for economics from University of La Verne)

“Cram Down Interest Rates in Chapter 11 Cases: Looking for the Magic Bullet”, April 20, 2009, Tarrant County Bar Association, Bankruptcy Bar, Fort Worth, Texas, (provided 30 minutes of CLE credit)

“Forensics Economics 101”, Boot Camp, Pre-Conference Session, American Rehabilitation Economics Association, Pittsburgh, Pennsylvania, May 15 – 16, 2008, co-presenters – Kevin Marshall, J.D., MPA, Shannon Shipp, Ph.D., (course, in conjunction with two other sessions, provided one hour of graduate credit for economics from University of La Verne)

“Analyzing Reorganization Plans and Assessing Cram Down Interest Rates for the Repayment of Debt in Chapter 11 Bankruptcy Cases”, National Association of Forensic Economics – Winter Meeting, Curacao, Netherlands Antilles, February 1, 2008

“The Self-Employed & Damages: Legal, Vocational & Economic Perspectives”, Pre-Conference Session, American Rehabilitation Economics Association, Pittsburgh Pennsylvania, May 17 – 18, 2007, co-presenters, legal perspective – Derrick Boyd, Esq., vocational perspective – William Reed, Ph.D., (course provided one hour of graduate credit for economics from University of La Verne)

“Cram Down Interest Rates for Unsecured Creditors: Where is the Risk?”, National Association of Forensic Economics – Winter Meeting, Western Caribbean Cruise, January 28, 2007

“Double Counting: What It Is and How to Avoid It”, American Rehabilitation Economics Association, Reno Nevada, May 20, 2006

“Personal Damages Calculations and the Courts: A Square Peg in a Round Hole or Common Sense for the Common Man”, National Litigation Support Services Association, Las Vegas, Nevada, May 9, 2006

Panel on “Some Key Issues in Employment Termination Cases”, American Rehabilitation Economics Association, Reno, Nevada, May 14, 2005

“The Sources and Uses of Growth and Discount Rate Data in a Litigious Environment”, Pre-Conference Session, American Rehabilitation Economics Association, Reno Nevada, May 12-13, 2005, Co-presenter – Gene Trevino, (course provided one hour of graduate credit for economics from Our Lady of the Lake University, Reno Nevada)

Panel on “Differences Between the Roles of a Forensic Economist for the Plaintiff and for the Defendant in Personal Injury / Wrongful Death Litigation”, Southern Economic Association, NAFE Conference, New Orleans, Louisiana, November 21, 2004

“Issues in Estimating Final Date of Separation from the Workforce”, Panel on Issues Calculating Work Life Expectancy: Quantitative vs. Qualitative Data, American Rehabilitation Economics Association, Fort Worth, Texas, May 17, 2003.

“The Best of ‘Bad’ Testimony: Strategies and Techniques No Expert Should Ever Use – And Why.” American Rehabilitation Economics Association, Fort Worth, Texas, May 16, 2003 (replaced Jim Rodgers on panel with Jerry Martin).

“Surviving a Daubert Challenge: A Survey of Attorneys”, American Rehabilitation Economics Association Conference, Reno, Nevada, May 18, 2002

“Understanding the MCPI: Lists of Terms and Definitions of Categories / The Appropriate Use and Application of the MCPI in a Litigation Context”, American Rehabilitation Economics Conference, Reno, Nevada, May 18, 2002

“Expense Offsets in Lost Earnings Calculations”, Panel Presentation: Issues Relating to Offsets Between Damage Elements in Forensic Economics, Southern Economic Association, Joint NAFE / AREA / AAEFE Conference, Tampa, Florida, November 18, 2001

Panel Presentation: Discount Rates in Lost Profits Cases, Discounting Methods and Theories, Discounting Methods on Other Issues, National Litigation Support Services Association, Las Vegas, Nevada, May 18, 2001.

“Inflation, Yield Curves and Inflation Indexed Bonds”, Southwestern Society of Economists, New Orleans, Louisiana, March 2, 2001.

“Head to Head: A Close-up View of Damage Software for Economic Professionals”, American Rehabilitation Economics Association Conference, Reno, Nevada, May 20, 2000.

“Head to Head to Head: A Close-up View of Software for Damage Calculations”, Southern Economic Association, New Orleans, Louisiana, November 21, 1999.

"The Concept of the Value of Active Leisure", National Association of Forensic Economists, Southwestern Meeting, San Antonio, Texas, April 2, 1999.

Panel Discussion on Different Perspectives of Discount Rates, National Association of Forensic Economists, Southwestern Meeting, San Antonio, Texas, April 2, 1999.

"Lost Earning Capacity: A Comparison of the Gamboa Tables, LPE and the Department of Labor Tables", Southwestern Society of Economists, Houston, Texas, March 11, 1999.

Round Table on Wrongful Death, National Association of Forensic Economists, Southwestern Meeting, Corpus Christi, Texas, March 21, 1998.

"An Overview in Worklife Expectancy Technique: An Analysis of the DOL Worklife Tables versus LPE", Southwestern Society of Economists, Dallas, Texas, March 6, 1998.

Requirements for Certified Earnings Analyst (CEA)

Granting Organization

American Rehabilitation Economics Association (AREA)

Certification Requirements

To obtain a CEA, the applicant must complete certain education, experience, and testing requirements. He or she must also agree to the code of ethics promulgated by AREA, obtain recommendations from attorneys, and complete ongoing continuing education. The specific requirements are listed below.

Education

All transcripts must be submitted. They are reviewed for relevant coursework in economics, statistics, finance, accounting, etc.

Experience

At least two actual work products and at least one deposition must be submitted.

Recommendations

At least three written recommendations from attorneys who can attest to the applicant's quality of work and character must be submitted.

Ethics

The candidate must sign the AREA Code of Ethics.

Testing

The candidate must pass 6-8 hour written exam on principles of estimating lost earnings and benefits

Continuing Education

The candidate must complete 15 hours of continuing education each year and at least 45 hours every three years

ALLYN B. NEEDHAM
TESTIMONIES AND DEPOSITIONS GIVEN

ATTORNEY	LOCATION	DATE	CASE	TYPE OF ANALYSIS	DEPOSITION	TRIAL / HEARING
Robert Goodman	Fort Worth, TX (via Zoom from office)	9/22	Russell Mullins v Traveling Coaches, Inc., et. al. v Russell Mullins, et. al. D-1-GN-20-001884 Travis County, TX	Wrongful Termination Back Pay & Front Pay Losses	*	
Jonathan Capp	Fort Worth, TX (via home Zoom)	9/22	Carlos de Freitas et. al., v The Hertz Corporation, et. al. 2:18-CV-01522-JAD-BNW United States District Court for District of Nevada	Supplemental Reports for de Freitas Lost Earning Capacity & Present Value of Life Care Plan	*	
Keith Langston, Tom Reardon	Fort Worth, TX (via Zoom from office)	9/22	Sarah Lynne Hanson v Werner Enterprises, Inc., et. Al. 2 :21-cv-245 U.S. District Court for the Eastern District of Texas, Marshall Division	Lost Earning Capacity	*	
Eric Cooper	Fort Worth, TX (via Zoom from office)	9/22	Philip Green v Ricky Powell, et. al. 21-0109 Harrison County, TX	Lost Earning Capacity	*	
Ted Anderson, Clark Will, Clay Hartman	Dallas, TX	9/22	Jeffrey Gray, et. Al. V Gutman Vision, Inc., et. Al. DC-17-07929 Dallas County, TX	Benefit of the Bargain on Purchase Price of Business & Unwind Purchase Amount		*
Jeremy Aleman, Marty Young	Fort Worth, TX	8/22	Keonata Davis v CKJ Transport – Energy Services, LLC, et. Al. 2021-615-B Gregg County, TX	Lost Earning Capacity	*	
Matthew Holland	Fort Worth, TX (via office Zoom)	6/22	Laszlo Kulcsar v Venetian Casino Resort, LLC, et. Al. A-20-808975-C Clark County, NV	Lost Earnings for Self-Employed Business Owner & Present Value of Future Tech Support	*	

Adewale Odetunde	Fort Worth, TX (via office Zoom)	6/22	Paula Duriseau, Individually & as the Representative of the Estate for Stephen Duriseau v Jonathan Ball et. al. 017-316905-20 Tarrant County, TX	Wrongful Death Lost Economic Support & Lost Household Services	*	
Ladd Sanger	Fort Worth, TX (via office Zoom)	5/22	Ann Christensen, et. al. v Gus Tamborello, Temporary Administrator of the Estate of Jeffrey C. Weiss, et al. 477,158-101 Probate Court Number 2 Harris County, TX	Wrongful Death Lost Economic Support & Lost Household Services	*	
William Masterson	Dallas, TX	4/22	Elena Izak v TD Ameritrade, Inc. FINRA Arbitration	Lost Earning Capacity Due to Damaging Language in her U-5		* (Arbitration Hearing)
Susan Hutchison, Rafe Foreman	Fort Worth, TX	3/22	Kevan Mott v TESMEC USA, Inc. 017-304893-18 Tarrant County, TX	Wrongful Termination Back Pay & Front Pay Losses		*
J. Robert Forshey, Matt Maben, David Spiller	Fort Worth, TX	3/22	In re: Jack County Hospital District d/b/a Faith Community Community Health System 20-42012-mxm9 U. S. Bankruptcy Court for the Northern District of TX, Fort Worth Division	Projecting Cash Flow for Health System in Chapter 9 Bankruptcy & Best Interest Analysis		*
Gunter Barber	Fort Worth, TX (via home Zoom)	2/22	Paul Barfield v Leoncio Gutierrez, DBA LG Trucking, et. al. 017-306186-19 Tarrant County, TX	Critique of Lost Earning Capacity Analysis Provided by Opposing Expert	*	
James Beam	Stephenville, TX	2/22	Crystal Grimsley, et. al. v Kadarius Armon-Rodkei Reeder, et. al. CV-20-0518 Parker County, TX	Lost Household Services, Present Value of Life Care Plan	*	

Thomas Arbon,	Fort Worth, TX (via office Zoom)	1/22	Charles Stroble v B. Braun Medical, Inc., et. Al. 213-2017-CV-00137 New Hampshire Superior Court	Present Value of a Life Care Plan	*	
Derrick Boyd, Jesse King	Decatur, TX	12/21	Envirodigim, Inc. v Texas Instruments, Inc. DC-19-20259 Dallas County, TX	Lost Profits from Delayed Launch of Business	*	
Ted Anderson, Clark Will	Fort Worth, TX (via office Zoom)	11/21	Jeffrey Gray, et. al v Gutman Vision, Inc., et. al. DC-17-07929 Dallas County, TX	Estimate Overpayment for Purchase of Two Optical Stores, Additional Interest Exp & Investment Costs	*	
Luis Cardenas, Joe Escobedo, Jr.	Fort Worth TX (via office Zoom)	11/21	Reynaldo Molina, Jr., et. al. v Superior Asphalt, Inc. d/b/a/ Texas SAI, Inc., et. al. DC-20-69 Starr County, TX	Lost Earning Capacity & Present Value of Life Care Plan	*	
Robert Tramuto	Fort Worth TX (via office Zoom)	10/21	Isabel Aranzamendi, et. Al. V Atmos Energy Corp, et. Al. CC-18-05668-E Dallas County, TX	Wrongful Death Lost Economic Support & Lost Household Services	*	
Brady Williams	Dallas, TX	9/21	Gregory Motto & Genie Motto v Daniel Martinez, D.O., et. al. 342-313198-19 Tarrant County, TX	Lost Earning Capacity & Present Value of Life Care Plan	*	
Mike Slack, Derek Quick	Fort Worth, TX	9/21	Ali Mohammed Al- Khawaldeh, et. al. v Boyd A. "Skip" Tackett, et. al. 1:20-cv-01079-RP	Wrongful Death Lost Economic Support of Jordanian who died in U.S.	*	

Derrick Boyd, Jesse King	Fort Worth, TX	8/21	R. Wade McKenna, D.O. v Neil Riordan, Ph.D., et. Al. & RMI Cell Therapy, LLC v R. Wade McKenna, D.O. 348-300858-18 Tarrant County, TX	Business Valuation of 45% Ownership in RMI, 17.5% ownership in ATI & Successor Companies, Loss of Distribution Income		*
Samuel Burke	Fort Worth TX (via office Zoom)	8/21	5 M&R Ranch, LP et. Al. V Rhon Rommer, et. Al. 18-9039-393 Denton County, TX	Opportunity Cost Analysis Based on U.S. Treasury Bonds and the S&P 500 Index	*	
Matt Meyer	Fort Worth TX (in person & via Zoom from 3 rd party location)	8/21	Janet Northrup, Chapter 7 Trustee for the Estate of FM Forrest, Inc. v Nazario Paragano, et. al. 2019-79948 Harris County, TX	Fraudulent Transfer & Solvency Assessment	*	
John Polewski	Fort Worth, TX (via office Zoom)	8/21	Tina Cellars v Daniel Sunwoo, MD, et. Al. DC-18-09173 Dallas County, TX	Lost Earning Capacity	*	
Chris Weber, Danny Needham	Fort Worth, TX (via home Zoom)	7/21	Hector Garza, v RTS Energy Services, LLC & Charles Barron, Jr. 52408 Howard County, TX	Critique Damages Calculations Provided by Opposing Expert, Calculate Present Value of Plaintiff and Defendant's Life Care Plans	*	
Clark Will	Dallas, Tx (via office Zoom)	6/21	Amphthink, LLC v. Neil MacRaid, et. al. v William Anderson DC-19-15995 Dallas County, TX	Supplemental Estimate of Lost Profits Based on New Sales Data	*	

W.D. Masterson, Robert Thornton	Dallas, TX	6/21	Linda Kalmbach v Nader Ewaida, M.D., et. al. 19-8028-211 Denton County, TX	Wrongful Death Lost Economic Support, Lost Household Services, Critique of Opposing Expert's Report	*	
Kolter McKenzie, Ben Martin	New Boston, TX	6/21	Charles Wayne Smith and Kelly Smith v Michael Gibson, M.D., et. al. 18C0888-005 Bowie County, TX	Lost Earning Capacity		*
David Drez, III, Zach Farrar, Paul Elkins	Fort Worth, TX	5/21	VLP Contractors, LLC v Jay Berney, et. al. & Jay Berney, et. al. v VLP Contractors, LLC, et. al. 017-308822-19 Tarrant County, TX	Lost Profits, Lost Profits from Sales Made by Defendants, Wages & Benefits Paid Defendants While Employed by & Competing with Plaintiff	*	
Jon Harrison, Kristin Newman	Fort Worth, TX (via home Zoom)	4/21	Preston Burton, as Independent Executor of the Estate of Trevor Morris, et. al. v First AV Group, LLC, et. al. 19-0412-B Smith County, TX	Critique Damages Calculations Provided by Opposing Expert	*	
Derrick Boyd, Allen Williamson, Jesse King	Decatur TX (via Boyd Powers Williamson office Zoom)	4/21	R. Wade McKenna, D.O. v Neil Riordan, Ph.D., et. Al. & RMI Cell Therapy, LLC v R. Wade McKenna, D.O. 348-300858-18 Tarrant County, TX	Business Valuation of 45% Ownership in RMI, 17.5% ownership in ATI & Successor Companies, Loss of Distribution Income	*	
Clark Will	Dallas Tx (via Amphthink office Zoom)	3/21	Amphthink, LLC v. Neil MacRaid, et. al. v William Anderson DC-19-15995 Dallas County, TX	Estimate Loss Due to Reduced Value of Purchase Price & Lost Profits	*	

Jessica Anderson, Robert Goodman, Jr.	Fort Worth, TX (via home Zoom)	3/21	Janice Ouhrabka v Exeltis USA, Inc., 4:20-CV-00215-RWS U.S. District Court for the Eastern District of Texas, Sherman Division	Wrongful Termination, Back Pay & Front Pay Losses	*	
Robert Goodman, Jr., Clark Will	Fort Worth, TX (via home Zoom)	12/20	Erin E. Green v Infosys 01-18-0001-4727 American Arbitration Association	Lost Earning Capacity Back Pay & Front Pay Losses	*	
Ben Martin	Fort Worth, TX (via home Zoom)	11/20	Misty Greger, et. Ux., Joey Greger v C.R. Bard, Inc. Et. Al. 4:19-cv-00675-SDJ U.S. District Court for the Eastern District of Texas, Sherman Division	Lost Earning Capacity, Present Value of Life Care Plan	*	
Steve Aldous, Richard Capshaw	Fort Worth, TX (via home Zoom)	10/20	Native Oilfield Services, LLC & John Barclay v Settle Pue, P.C. & The Settle Firm, Inc., P.C. 18-14393 Dallas County, TX	Opportunity Cost Loss Due to Inability to Obtain Additional Capital	*	
Charla Aldous, Tiffany Standly	Fort Worth, TX (via office Zoom)	10/20	L.W. and J.W. v St. David's Healthcare Partnership, LP, LLP 01-20-0001-7523 American Arbitration Association	Lost Earning Capacity		* (Arbitration Hearing)
Charla Aldous, Tiffany Standly	Fort Worth, TX (via home Zoom)	10/20	L.W. and J.W. v St. David's Healthcare Partnership, LP, LLP 01-20-0001-7523 American Arbitration Association	Lost Earning Capacity	*	
James Beam	Fort Worth, TX (via office Zoom)	10/20	Crystal Grimsley, et. al. v Kadarius Armon- Rodkei Reeder, et. al. CV20-0518 Parker County, TX	Lost Household Services, Present Value of Life Care Plan		* (Default Hearing)
Derrick Boyd, Allen Williamson, Matt Meyer	Fort Worth, TX (via office Zoom)	9/20	UMB Bank, NA v Kobi Electric, LLC et. al. 017-299994-18 Tarrant County, TX	Business Valuation, Fairness Opinion on Letter of Intent to Purchase		*

Adewale Odetunde	Fort Worth, TX (via home Zoom)	7/20	Kate Harrison, et. Al. V Anthony Huey, et. Al. 348-299113-18 Tarrant County, TX	Present Valuation Calculation of Life Care Plan for Kate Harrison	*	
Dean Gresham	Fort Worth, TX (via home Zoom)	7/20	Kendan Elliott, as Next of Friend of S.J.E., a Minor v Aaron Spitz, M.D., et. al. 8:18-cv-02100-JLS-JDE U.S. District Court for the Central District of California, Southern Division	Present Valuation Calculation of Life Care Plan for S.J.E.	*	
Jason Smith	Fort Worth, TX (via home Zoom)	6/20	Ricardo Avita v Texas Christian University 342-307963-19 Tarrant County, TX	Lost Earning Capacity Back Pay and Front Pay Losses including Lost Tuition Assistance	*	
W.D. Masterson	Fort Worth, TX (via home Zoom)	6/20	Joy Johnson v BBVA Compass Bank 141-307266-19 Tarrant County, TX	Lost Earning Capacity Back Pay and Front Pay Losses	*	
W.D. Masterson	Fort Worth, TX (via home Zoom)	4/20	Robert Tapley v Simplifile, LC 3:19-CV-00227-N U.S. District Court for the Northern District of Texas, Dallas Division	Lost Earning Capacity Back Pay and Front Pay Losses	*	
Jason Ankele	Fort Worth, TX (via home Zoom)	4/20	Lorna Dean, Individually and as Next Friend of K.F., a Minor v Construction Zone of Texas, LLC, et. al. 153-296860-17 Tarrant County, TX	Lost Earning Capacity	*	
Chester Gilmore	Fort Worth, TX (via home Zoom)	3/20	Kathryn Bickler, DDS v U.S. Healthworks Medical Group of Alaska, LLC, et. al. 3AN-18-05843 CI 3 rd Judicial District Anchorage Alaska	The Impact of External Causation on Dentist's Income in Alaska	*	
Kevin Queenan, Carlos Lopez	Arlington, TX	3/20	Johnny K. Prescher, et. al. v Chaparral Steel Company, et. al. DC-C201600481 Johnson County, TX	Lost Earning Capacity	*	

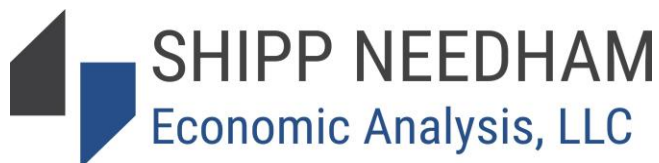
Robert Goodman, Jr.	Dallas, TX	2/20	Michael Grim & Jim Maynard v City of Denton DC-17-08139 Dallas County, TX	Lost Earning Capacity, Back Pay and Front Pay Losses		*
Derrick Boyd, Allen Williamson	Decatur, TX	2/20	UMB Bank, NA v Kobi Electric, LLC et. al. 017-299994-18 Tarrant County, TX	Business Valuation, Fairness Opinion on Letter of Intent to Purchase	*	
Michael Yanof, Wes Black, Jeff Goldfarb	Dallas, TX	1/20	C.D.C. v Bethany Stewart DC-16-08108 Dallas County, TX	Lost Earning Capacity		*
Ethan Shaw, Rachel Crutchfield	Houston, TX	1/20	Cassandra Johnson v Mercury County Mutual Insurance Co. 2018-57072 Harris County, TX	Lost Earning Capacity, Present Value of Life Care Plan		*
Michael Henry, Robert Hammer	Fort Worth, TX	12/19	Lori and Michael Rawson v Skipper Joel Bertrand, MD, et. Al. 048-300202-18 Tarrant County, TX	Lost Earning Capacity, Lost Household Services, Present Value of Life Care Plan	*	
Peter Malouf, Stephen Malouf	Dallas, TX	11/19	James Hefner, as next friend of Brian R. Hefner v Caregiver 1, Inc., et. al. DC 18-07724 Dallas County, TX	Present Value of Life Care Plan	*	
Jonathan Capp	Fort Worth, TX	10/19	Isabel Auler, et. al. v The Hertz Corporation, et. al. 2:18-cv-01522-JAD-PAL U.S. District Court District of Nevada	Lost Earning Capacity, Present Value of Life Care Plans, Brand Separation Analysis	*	
Ted Anderson, Robert Behrendt	Dallas, TX	10/19	Kyle Hagen v East Lake Capital Management, LLC, et. al. American Arbitration Association 01-18-0001-6045	Back Pay and Front Pay Loss, Value of Equity Interest in Business		* (Arbitration hearing)
Ethan Shaw, Rachel Crutchfield	Fort Worth, TX	10/19	Cassandra Johnson v Mercury County Mutual Insurance Co. 2018-57072 Harris County, TX	Lost Earning Capacity, Present Value of Life Care Plan	*	

Robert Goodman, Jr.	Dallas, TX	10/19	Michael Grim & Jim Maynard v City of Denton DC-17-08139 Dallas County, TX	Lost Earning Capacity, Back Pay and Front Pay Losses	*	
W.D. Masterson	Dallas, TX	9/19	Life Insurance Company of the Southwest, et. al. v Blake Zaal, et. al. DC-17-17560 Dallas County, TX	Business Valuation, Lost Commission Stream		* (Pre-Trial Hearing)
Stephen Malouf, Peter Malouf	Dallas, TX	9/19	Robin Phelan, et. al. v Walnut Hill Physicians' Hospital, LLC et. al. DC-16-13777 Dallas County, TX	Lost Earning Capacity, Lost Household Services, Present Value of Life Care Plan		*
Susan Hutchison, Chris Stoy	Fort Worth, TX	9/19	Roy Stults v Lonestar Prospects, Ltd. d/b/a Vista Sand 141-295874-17 Tarrant County, TX	Lost Earning Capacity	*	
Charla Aldous, Caleb Miller	Dallas, TX	9/19	Jiebo Xi & Xiaolian Ren v BMC West, LLC et. al. DC-18-04795 Dallas County, TX	Lost Earning Capacity, Present Value of Life Care Plan Costs	*	
Clay Hartmann	Dallas, TX	8/19	Cynthia Moser, et. Al. V Omnitrition International, Inc. 3:16-cv-02558 U.S. District Court Northern District of Texas, Dallas Division	Lost Income from Multi-Level Marketing Firm, Lost Income from new MLM firm due to Interference	*	
Mark Underwood	McKinney, TX	8/19	Thomas Stocks, et. al. v Wal-Mart Stores Texas, LLC, et. al. 99382-86 Kaufman County, TX	Present Value of Life Care Plan Costs	*	
W.D. Masterson	Dallas, TX	8/19	Life Insurance Co. of the Southwest & National Life Insurance Co. v Blake Zaal et. Al. DC-17-17560 Dallas County, TX	Business Valuation	*	
Michael Yanof, Wes Black, Jeff Goldfarb	Dallas, TX	8/19	C.D.C. v Bethany Stewart DC-16-08108 Dallas County, TX	Lost Earning Capacity	*	

Michael Alfred, David Spiller	Dallas, TX	7/19	Jack County Hospital District d/b/a Faith Community Hospital v Blue Cross Blue Shield of Texas, a Division of Health Care Service Corporation 01-17-0006-8253 American Arbitration Association	Lost profits		* (Arbitration Hearing)
W.D. Masterson	Dallas, TX	7/19	Maria R. Limas v City of Dallas DC-18-16334 Dallas County, TX	Lost Earning Capacity, Back Pay and Front Pay Loss	*	
Patrick Carew	Corpus Christi, TX	6/19	MSW Corpus Christi Landfill, LTD., v Gulley-Hurst LLC, Robert Bryan Gulley, Individually and Phillip R. Hurst, Individually 2016DCV-6158-B Nueces County, TX	Loss of the Use of Money, Loss of Option to Sell Interest in Business, Lost Profits		*
Michael Alfred, David Spiller	Dallas, TX	6/19	Jack County Hospital District d/b/a Faith Community Hospital v Blue Cross Blue Shield of Texas, a Division of Health Care Service Corporation 01-17-0006-8253 American Arbitration Association	Lost Profits	*	
Tom Cowart, Michael Yanof	Dallas, TX	5/19	Asta Partners, LLC, Asta Gold 1 Partners, LLC v Velumani Palaniswamy, et. al. 17-1244-431 Denton County, TX	Analysis of Losses Related to Money Stolen from Business	*	
Jim Webster	Dallas, TX	5/19	Jaime Gonzalez v E- Care Emergency Frisco, LLC d/b/a E-Care Emergency Center, et. al. CC-15-04665-B Dallas County, TX	Critique of Opposing Expert's Economic Damage Report	*	
George Miller, Jonah Toleno	Houston, TX	5/19	Christopher Johnson & Lee Przybyla v USAA Financial Advisors, Inc. 17-03279 FINRA Arbitration Hearing	Lost Earning Capacity Due to Damaging Language in his U-5		* (Arbitration Hearing)

Kristopher Heald	McKinney, TX	5/19	Edmund O. Cordero v Kyle Ray Ricchi, et. al. 219-03412-2016 Collin County, TX	Lost Earning Capacity		*
Kelly Puls, J. Patrick Gallagher	Dallas, TX	5/19	Lezlie Johnston v Lincoln Property Company Management Inc., et. al. DC-16-07145 Dallas County, TX	Estimate Present Value of Life Care Plan		*
Derrick Boyd, Allen Williamson, Jesse King	Fort Worth, TX	4/19	XIP, LLC v Michael McGraw et. al. v J.K. Henderson, et. al. v J.K. Henderson & Roam Corporation 348-267268-13 Tarrant County, TX	Lost Royalties, Lost Profits, Unjust Enrichment		*
Derrick Boyd, Allen Williamson, Jesse King	Fort Worth, TX	3/19	XIP, LLC v Michael McGraw et. al. v J.K. Henderson, et. al. v J.K. Henderson & Roam Corporation 348-267268-13 Tarrant County, TX	Lost Royalties, Lost Profits, Unjust Enrichment	*	
Doug Hafer, Geno Borchardt	Fort Worth, TX	2/19	Jessica Sides, et. al. v Winston D. Tavee, M.D., et. al. 348-287420-16 Tarrant County, TX	Lost Earning Capacity	*	
W. Kelly Puls	Fort Worth, TX	2/19	Lezlie Johnston v Lincoln Property Company Management, Inc. et. al. DC-16-07145 Dallas County, TX	Present Value of Ms. Johnston's Life Care Plan Costs	*	
Mark Nacol, Julian Nacol	Dallas, TX	2/19	In the Matter of Marriage of Danielle Armstrong-Briley and Ronald C. Briley DF-18-05997 Dallas County, TX	Data Needed to Complete, Valuation of the Estate, Projecting Future Expert Fees		* (Pre-Trial Hearing)
Charla Aldous, Brent Walker	Dallas, TX	2/19	Sarah Milburn, et. Al. V Uber Technologies, Inc., et. Al. DC-16-16470 Dallas County, TX	Lost Earning Capacity, Calculating Present Value of Life Care Plan		*
Matthew Meyer, Allen Williamson	Decatur, TX	1/19	MLCCA, Inc. v SF Const. Serv., LLC, et. Al. CV17-01-057 Wise County, TX	Lost Profits		* (by video)

Kristofor Heald, Martin Futrell	Dallas, TX	1/19	Susan Panter, et. al. v Yellow Checker Cab Company of Dallas / Fort Worth, Inc. et. al. DC-15-06311 Dallas County, TX	Lost Earning Capacity		*
Michael Martinez, Michael Nadimi	Dallas, TX	12/18	Anastacio Lemus Lopez v Minneapolis Police Officer Russell Cragin, et. al. 17-cv-01179-PAM- KMM U.S. District Court District of Minnesota	Lost Earning Capacity	*	
David Russell	Fort Worth, TX	12/18	Charles Wells, Individually et. al. v Amarillo Anesthesia Consultants, et. al. 106681-D-CV Potter County, TX	Wrongful Death, Lost Economic Support, Lost Household Services	*	
Matthew Meyer, Allen Williamson	Decatur, TX	12/18	MLCCA, Inc. v SF Const. Serv., LLC, et. Al. CV17-01-057 Wise County, TX	Lost Profits	*	
W. D. Masterson	Dallas, TX	10/18	Leslie Keng v USAA, et. Al. 17-01737 FINRA Arbitration Hearing	Lost Earning Capacity Due to Damaging Language in his U-5		* (Arbitration Hearing)
Michael Peck	Fort Worth, TX	10/18	Hung Dang, M.D. v Mai Vu-Quynh Hoang, M.D., et. Al. 141-292051-17 Tarrant County, TX	Calculating Lost Income from a Profit Sharing Agreement	*	
Roger Hurlbut	Fort Worth, TX	9/18	Estate of Michael Purgason, Michelle Purgason and Thomas Purgason, M.D. v Jack Hobert Good, et. al. 35179 Washington County, TX, Moved to Probate Court No. 2 Tarrant County, TX	Wrongful Death Lost Income from Family Medical Practice & Loss of Practice Value Incurred by Parents due to Son's Death		*
Robert Goodman, Jr.	Dallas, TX	9/18	Neil Parr v BAE Systems Technical Solutions, Inc., et. al. 096-290691-17 Tarrant County, TX	Wrongful Termination Lost Back Pay and Front Pay	*	



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Fee Schedule

Analysis, report preparation, attorney meetings	\$425 per hour
Trial testimony, deposition testimony	\$425 per hour (3 hour minimum)
Travel expenses	as incurred
Retainer	Amount depending on estimated time to complete analysis

A handwritten signature in black ink, appearing to read "Allyn Needham".

Allyn Needham

A handwritten signature in black ink, appearing to read "Shannon Shipp".

Shannon Shipp

SHIPP NEEDHAM
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817-348-0232 Facsimile

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Invoice

October 21, 2022

Derrick Boyd
Boyd, Powers & Williamson
P.O. Box 957
Decatur, TX 76234

RE: Robert Harris v PropX

Services Rendered:

Hours	Rate/Hour	Dollars
24.0	\$425	\$10,200.00
Total	\$10,200.00	
Retainer Paid	\$0.00	
TOTAL DUE	\$10,200.00	

First Invoice: Please See Attached Sheet

Terms: Net on Invoice. Please make the check payable to:
Shipp Needham Economic Analysis, LLC (Tax #75-2720914).
Case # 22.08.011

This invoice has been sent to the firm that requested our services. Payment is due on invoice. Communications regarding this invoice will be made to the invoiced firm. We reserve the right to demand full payment of any outstanding balances before providing additional services.

Robert Harris v PropX

Hours and Expenses
9/8/2022 through 10/21/2022

Date	Work Performed	Time
9/8/2022	Phone Call w/ J. King	0.50
9/29/2022	Phone Call w/ D. Boyd	0.50
10/10/2022	Phone Call w/ J. King	
	Review Docs & Financials, Spreadsheet Prep	2.75
10/11/2022	Review Docs & Fisher Depo	0.75
10/12/2022	Review Depos - Fisher, McEver	5.50
10/13/2022	Review Depos - D'Agustinos	1.00
10/17/2022	Phone Call w/ D. Boyd & J. King, Research, Analysis, Spreadsheet Calculations	1.50
10/18/2022	Reserch, Report Writing, Spreadsheet Prep	3.50
10/19/2022	Research, Report Writing, Spreadsheet Prep	4.00
10/20/2022	Research, Report Writing, Editing	2.50
10/21/2022	Report Writing, Editing	1.50
	Total Hours	<u>24.00</u>
	times \$425 per hour	10,200.00
	Total Invoice	10,200.00